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| Substitute for form 1449PTO<br><br><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   | Complete if Known<br><b>Application Number</b> 10/602,355<br><b>Filing Date</b> 2003-06-23<br><b>First Named Inventor</b> SCHIFF, Leonard N.<br><b>Art Unit</b> 2618<br><b>Examiner Name</b> CHAN, RICHARD |   |
| <b>Sheet</b>   | 1 | <b>of</b>  | 5 |
|  |   | <b>Attorney Docket No:</b> 010129U1  |   |

| U.S. PATENT DOCUMENTS |          |  |                                |   |   |
|-----------------------|----------|--|--------------------------------|---|---|
| Examiner Initials*    | Cite No. | Document Number<br>Number-Kind Code <sup>21ff</sup><br>Known | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|                       | 001      | US3995801  | 12-07-1976                     | BOND, Donald Spencer                            |   |
|                       | 002      | US4502051  | 02-26-1985                     | DONDL, Peter                                    |   |
|                       | 003      | US4688259  | 08-18-1987                     | EDRIDGE, Michael J.                             |   |
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|                       | 007      | US5120007  | 06-09-1992                     | POCHA, Jehangir J. et al.                       |   |
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Substitute for form "4-38PTO"

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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|                      |                    |
|----------------------|--------------------|
| Application Number   | 10/602,355         |
| Filing Date          | 2003-06-23         |
| First Named Inventor | SCHIFF; Leonard N. |
| Art Unit             | 2618               |
| Examiner Name        | CHAN, RICHARD      |

|       |   |    |   |                              |
|-------|---|----|---|------------------------------|
| Sheet | 2 | of | 5 | Attorney Docket No: G10129U1 |
|-------|---|----|---|------------------------------|

## U.S. PATENT DOCUMENTS

| Examiner<br>Initials* | Cite<br>No.† | Document Number                                | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages<br>or Relevant Figures<br>Appear |
|-----------------------|--------------|--|-----------------------------------|--|---|
|                       |              | Number-Kind Code <sup>2(a)</sup><br>(if known) |                                   |  |   |
|                       | 020          | US5890679                                      | 04-06-1999                        | CHETHIK, Frank                                     |   |
|                       | 021          | US6192217                                      | 02-20-2001                        | FARRELL; Jerald F.                                 |   |
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 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \* Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. \* Applicant is to place a check mark here if English language translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting this completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   | <b>Application Number</b>   | 10/602,355         |                                     |
|   |   | <b>Filing Date</b>          | 2003-06-23         |                                     |
|   |   | <b>First Named Inventor</b> | SCHIFF, Leonard N. |                                     |
|   |   | <b>Art Unit</b>             | 2618               |                                     |
|   |   | <b>Examiner Name</b>        | CHAN, RICHARD      |                                     |
| <b>Sheet</b>  | 3 | of                          | 5                  | <b>Attorney Docket No:</b> 010129U1 |

| U.S. PATENT DOCUMENTS |                       |   |                                |  |   |
|-----------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials*    | Cite No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2,3</sup><br>(known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages<br>or Relevant Figures<br>Appear |
|                       | 040                   | US20070077884   | 04-05-2007                     | REGULINSKI, Paul Lucian<br>et al.                  |   |

| FOREIGN PATENT DOCUMENTS |                       |   |                                |  |   |                          |
|--------------------------|-----------------------|---|--------------------------------|--|---|--------------------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document<br>Country Code <sup>2</sup><br>Number-Kind Code <sup>3</sup> (if<br>known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages or<br>Relevant Figures<br>Appear | T <sup>6</sup>           |
|                          | 041                   | CN1359561A  | 07-17-2002                     | ASSURESAT INC [US]                                 |   | <input type="checkbox"/> |
|                          | 042                   | EP1014598A2   | 10-06-2004                     | HUGHES ELECTRONICS<br>CORP [US]                    |   | <input type="checkbox"/> |
|                          | 043                   | EP1065806A2   | 01-03-2001                     | ASSURESAT INC [US]                                 |   | <input type="checkbox"/> |
|                          | 044                   | JP11150500A   | 06-02-1999                     | NIPPON TELEGRAPH &<br>TELEPHONE                    |   | <input type="checkbox"/> |
|                          | 045                   | JP11501468  | 02-02-1999                     | ERICSSON GE MOBILE<br>INC [US]                     |   | <input type="checkbox"/> |
|                          | 046                   | JP2003078464A   | 03-14-2003                     | LORAL SPACE SYSTEMS<br>INC.                        |   | <input type="checkbox"/> |
|                          | 047                   | JP8510609   | 11-05-1996                     | ERICSSON INC.                                      |   | <input type="checkbox"/> |
|                          | 048                   | WO0103310A1   | 01-11-2001                     | ASSURESAT INC [US]                                 |   | <input type="checkbox"/> |
|                          | 049                   | WO04010610  | 01-29-2004                     | QUALCOMM INC.                                      |   | <input type="checkbox"/> |

| NON PATENT LITERATURE DOCUMENTS |          |   |
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 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. > Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. > Applicant is to place a check mark here if English language translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, searching, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   | <b>Application Number</b>   | 10/602,355         |                                     |
|   |   | <b>Filing Date</b>          | 2003-06-23         |                                     |
|   |   | <b>First Named Inventor</b> | SCHIFF, Leonard N. |                                     |
|   |   | <b>Art Unit</b>             | 2618               |                                     |
|   |   | <b>Examiner Name</b>        | CHAN, RICHARD      |                                     |
| <b>Sheet</b>  | 4 | <b>of</b>                   | 5                  | <b>Attorney Docket No:</b> 010129U1 |

| NON PATENT LITERATURE DOCUMENTS |          |   |                          |    |
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| Examiner Initials*              | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |                          | T2 |
|                                 | 050      | CN OA from CN 03822645.6; dated August 4, 2008.   | <input type="checkbox"/> |    |
|                                 | 051      | CN OA from CN03822645.06; dated November 23, 2009.  | <input type="checkbox"/> |    |
|                                 | 052      | EP OA from EP 03765995.0; dated September 4, 2009.  | <input type="checkbox"/> |    |
|                                 | 053      | European Search Report - EP08013456 - Search Authority - The Hague - 2011-05-03 (010129U1EPD1).   | <input type="checkbox"/> |    |
|                                 | 054      | INTERNATIONAL SEARCH REPORT - PCT/US2003/23069 - ISA/EPO - 2003-10-31 (010129U1).   | <input type="checkbox"/> |    |
|                                 | 055      | OA dated 11-03-2006 for US Patent Application 10/624,257; 27 pages  | <input type="checkbox"/> |    |
|                                 | 056      | OA dated 3-29-2010 for Korean Patent Application No. 2005-7001314; 8 pages.   | <input type="checkbox"/> |    |
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|--|--------------------|--|----------|---------------------------|------------|--------------------|------------|-----------------------------|--------------------|-----------------|------|----------------------|---------------|
| Substitute for form #440-PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(Use as many sheets as necessary)</i> |                    | <i>Complete if Known</i><br><table border="1"> <tr> <td><b>Application Number</b></td> <td>10/602,355</td> </tr> <tr> <td><b>Filing Date</b></td> <td>2003-06-23</td> </tr> <tr> <td><b>First Named Inventor</b></td> <td>SCHIFF, Leonard N.</td> </tr> <tr> <td><b>Art Unit</b></td> <td>2618</td> </tr> <tr> <td><b>Examiner Name</b></td> <td>CHAN, RICHARD</td> </tr> </table> |          | <b>Application Number</b> | 10/602,355 | <b>Filing Date</b> | 2003-06-23 | <b>First Named Inventor</b> | SCHIFF, Leonard N. | <b>Art Unit</b> | 2618 | <b>Examiner Name</b> | CHAN, RICHARD |
| <b>Application Number</b>  | 10/602,355         |  |          |                           |            |                    |            |                             |                    |                 |      |                      |               |
| <b>Filing Date</b>   | 2003-06-23         |  |          |                           |            |                    |            |                             |                    |                 |      |                      |               |
| <b>First Named Inventor</b>  | SCHIFF, Leonard N. |  |          |                           |            |                    |            |                             |                    |                 |      |                      |               |
| <b>Art Unit</b>  | 2618               |  |          |                           |            |                    |            |                             |                    |                 |      |                      |               |
| <b>Examiner Name</b>   | CHAN, RICHARD      |  |          |                           |            |                    |            |                             |                    |                 |      |                      |               |
| <b>Sheet</b>   | <b>5</b>           | <b>of</b>  | <b>5</b> |                           |            |                    |            |                             |                    |                 |      |                      |               |
|  |                    | <b>Attorney Docket No:</b> 010129U1  |          |                           |            |                    |            |                             |                    |                 |      |                      |               |

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

- ☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

- ☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).


- ☐ See attached certification statement.

- ☒ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

- ☐ None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 1018. Please see CFR 1.4(d) for the form of the signature.

|                   |   |                            |            |
|-------------------|---|----------------------------|------------|
| <b>Signature</b>  |  | <b>Date (YYYY-MM-DD)</b>   | 2012-03-19 |
| <b>Name/Print</b> | Jeffrey D. Jacobs   | <b>Registration Number</b> | 40,929     |

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.